REMARKS

Applicant wishes to thank the Examiner for considering the present application. In the Office Action mailed April 19, 2002, claims 1-20 are pending in the application. Applicant respectfully requests the Examiner for reconsideration.

Claims 1-9 stand rejected under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant has amended claim 1 to clarify the coupling of the second channel. Applicant believes that this amendment overcomes this rejection.

Claims 1-6 stand rejected under the judicially created doctrine of double patenting over claims 13-15 of U.S. Patent 6,345,961.

It should be noted that claims 13 and 14 are dependent from claim 1. Claim 15 is also a dependent claim upon claim 1.

The Examiner is directed to Figs. 3-5 of the present application. The present invention is directed to the routing of the passages from the high pressure output. In each of the cases the high pressure output is coupled to a turbine which in turn turns a booster pump for the input to the process chamber. In addition, a second path from the output is provided. The second path from the high pressure output is directed to the input of the process chamber. This input may, for example, be prior to the pump in Figs. 3 and 4 and after the pump in Fig. 5. Such a device is not taught or suggested in claims 13-15 or any place in the '961 patent. The '961 patent is generally directed to a thrust bearing configuration. In claims 13 and 15 a reverse osmosis

process apparatus is described that has a hydraulic pressure booster with the specific configuration of claim 1. Applicant could not present claims to such a configuration since it did not exist in the '961 patent. For that matter, such a device is also not suggested in the '961 patent. Applicant therefore requests the Examiner for reconsideration of this rejection.

Claims 1-6, 10, 11, 12, 16, and 17 stand rejected under 35 USC §103(a) as being unpatentable over *Oklejas* (4,966,708). Applicant respectfully traverses.

The present claims are specifically directed to a device that has a process chamber with a high pressure outlet and a first channel and a second channel that leaves the high pressure outlet. The first channel is fluidically coupled to an energy recovery turbine which drives a booster pump and a second channel is coupled back to the input of the process chamber. In this manner, a more efficient and more controllable process may be implemented.

The '708 patent is directed to a power recovery pump turbine. The power recovery pump turbine shows a similar configuration to that of the present invention in Figs. 2, 3, and 4. Namely, a high pressure output of a process chamber is shown driving a pump turbine. The similarities end there. No teaching or suggestion, however, is found in the '708 patent for a second fluid path from the high pressure output of the pump turbine. On page 4 of the Office Action the Examiner states that "The second channel connected to the chamber and first channel or retentate outlet is also disclosed in the '708 (Fig. 10)." Applicant respectfully submits that no second channel from the high pressure output of the process chamber that is connected to the

input of the process chamber is illustrated. Fig. 10 merely presents more details of the turbine and pump.

Applicant therefore respectfully requests reconsideration of this rejection. Both claims 1 and 10 have similar limitations that are not shown in the *Oklejas* reference. Likewise, the method claim 16 is also similar in terms of "recirculating a second portion of the high pressure fluid." This is not taught or suggested in the *Oklejas* reference as mentioned above. Therefore, each of independent claims 1, 10, and 16 are believed to be allowable for the reasons set forth above. Applicant therefore requests the Examiner for reconsideration of this rejection.

Claims 8, 9, 13, 14, 15, and 18-20 stand rejected under 35 USC §103(a) as being unpatentable over *Oklejas* (in '708) in further view of *Pelmulder*. Applicant respectfully traverses. The *Pelmulder* reference is for a water purification process. The *Oklejas* reference as mentioned above has several drawbacks. The *Pelmulder* reference fails to teach or suggest the combination and drawbacks described above. Therefore, applicant respectfully requests the Examiner for a reconsideration of these claims that are more specific limitations of their base claims.

Claims 1-5 stand rejected under 35 USC §103(a) as being unpatentable over *Keefer* (4,973,408). Applicant respectfully traverses.

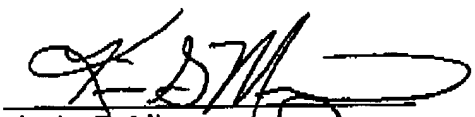
Applicant has amended claim 1 to clarify the §112 rejection above. The *Keefer* reference has a concentrate output illustrated. However, the *Keefer* reference does not describe a first conduit and a second conduit configured in the manner recited in claim 1. Although the device illustrates a booster pump, no teaching or suggestion is

provided for a second output connected to a process chamber. Applicant therefore requests reconsideration of this rejection as well.

In light of the above amendments and remarks, applicant submits that all rejections are now overcome. Applicant has added no new material to the application by these amendments. The application is now in condition for allowance and expeditious notice thereof is earnestly solicited. Should the Examiner have any questions or comments which would place the application in better condition for allowance, she is respectfully requested to call the undersigned attorney.

Please charge any fees required in the filing of this amendment to deposit account 50-0476.

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

1. (Amended) A system comprising:

a process chamber having a feed inlet, a low pressure outlet and a high pressure outlet;

a feed pump;

a common shaft having rotatably coupled thereto a booster pump fluidically coupled between said feed pump and said feed inlet and an energy recovery turbine fluidically coupled to said high pressure outlet through a first channel, said energy recovery turbine drives said booster pump; and

a second channel fluidically coupling an input of said process chamber and said high pressure outlet.